DOCUMENT RESUME

ED 472 812 SP 041 327

AUTHOR	Hegler, Kay L.
TITLE	Using General Education Assessment Rubrics to Document Basic Skills and Content Knowledge.
PUB DATE	2003-01-00
NOTE	19p.; Paper presented at the Annual Meeting of the American Association of Colleges for Teacher Education (55th, New Orleans, LA, January 24-27, 2003).
PUB TYPE	Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE	EDRS Price MF01/PC01 Plus Postage.
DESCRIPTORS	Alternative Assessment; Cooperative Planning; Elementary Secondary Education; Higher Education; Knowledge Base for Teaching; Performance Based Assessment; Preservice Teacher Education; *Scoring Rubrics; *State Standards; *Student Teacher Evaluation; *Teacher Competencies; Teacher Knowledge; Teaching Skills
IDENTIFIERS	Nebraska

ABSTRACT

This paper describes a collaborative approach to using general education rubrics as an additional assessment strategy to American Association of Colleges for Teacher Education members who are revising and sustaining their institutional and teacher education assessment programs. Faculty members from a rural, comprehensive private college in Nebraska have developed and are using ten rubrics: writing; critical thinking; heritage studies; cultural perspectives; mathematics reasoning; communication; community and leadership; health and wellbeing; liberal learning; and natural sciences. The paper presents information on: ways to use rubrics; the process for rubric development; rubric development criteria; strategies to build faculty commitment; collaboration between general education and teacher education; basic skills competence; and content knowledge. The paper concludes that using general education rubrics to document teacher candidate accomplishments of basic skills and content knowledge is collaborative, efficient, and effective, noting that the process of gathering assessment data, completing data analysis, and using findings to improve programs is both intensive and extensive. The rubrics are attached. (SM)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 472 812

Using General Education Assessment Rubrics to Document Basic Skills and Content Knowledge

AACTE Annual Conference
New Orleans, LA
January 26, 2003

Kay L. Hegler, Ph. D.
Professor of Education and Assessment Officer
Doane College, Crete, NE 68333
khegler@doane.edu

BEST COPY AVAILABLE

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Kay Hegler

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

SP041327

Using General Education Assessment Rubrics to Document Basic Skills and Content Knowledge

Regional and professional accreditation standards challenge faculty in the liberal arts and teacher education to assess the achievement of undergraduate students. Faculty have always determined what students have learned. Faculty have graded tests, evaluated papers, and reviewed presentations. The results were given to the student and the most effective faculty made notes for revisions the next time the course was taught. The assessment initiative changes this process by asking faculty to share course assessments for reviews of student achievement in academic majors. Faculty now must aggregate data for review; from a larger perspective colleges and universities are examining learning directed to the liberal arts outcomes. Assessment has made visible and public the intentional improvement process. Now improvements in programming are celebrated in styles previously reserved for the opening of a new building.

Assessment of learning is an integral part of instruction, yet many faculty believe it is an added responsibility apart from the teaching process. Public institutions report their findings to a larger audience than private institutions (Allen and Bresciani, 2003). Given the high demands on faculty time, assessment strategies should serve multiple audiences whenever possible. Several times over, we ask ourselves and our colleagues this question: What are successful structures and approaches for schools, colleges, and departments of education? The use of general education assessment data to provide information about teacher-candidate accomplishment of basic skills and content knowledge is a new solution to this question. Collaboration among faculty is efficient use of both human and fiscal resources.

Assessment: An Integral Part of Teaching-Learning

Assessment is an essential process today. Informally or formally, we assess in all arenas of business, education, and recreation. Educators face national agendas for student learning and centralized testing during a time of increased classroom challenges and more needs for individualized student support. Teacher educators and their liberal arts colleagues recognize that these agendas apply to tertiary education as well as elementary and secondary programs. They can collaborate to gather and jointly analyze data to benefit student achievement. This collaboration results in effective and efficient assessment strategies.

Maki (2002) restates several points about assessment which ring true to faculty understanding about assessment. Maki begins by noting that faculty view assessment as an externally-mandated process that is separate and distinct from their teaching and scholarship. She continues that viewing assessment as scholarship about learning in the

faculty member's content area of expertise and interest motivates faculty to participate more fully in the assessment process. She concludes that institutions should foster faculty inquiry about student learning through revisions in academic structures.

Collaboration through assessment

One revision in academic structures is more collaboration between teacher educators and faculty in the liberal arts. Although there are many collaborative structures, one emergent strategy is to host joint accreditation visits by two or more accreditation agencies. Erickson and Penney (2002) describe an accreditation team that combined members from the Middle States Association (MSA), the American Assembly of Collegiate Schools of Business (AACSB), and ABET, the specialized accreditor for engineering. Planning started two years before the actual on-site visit. Early planning of the self-study format and team composition are important, as is regular communication among the team chair and co-chairs prior to the visit.

At a local institutional level, collaborative efforts to support assessment can be implemented through development of rubrics for student performance of liberal learning outcomes. These outcomes integrate the knowledge, skills, and dispositions expected of graduates. For teacher educators, assessment of teacher candidate performance with general education rubrics offers another strategy to document candidate basic skills and content knowledge. Rubrics offer students/teacher candidates clear expectations and allow self-assessment and faculty evaluation of accomplishment of the learning indicators. Careful development of rubrics minimizes institutionalized bias and sets the expectation of integrated learning to avoid learning of isolated facts. Additionally, general education rubrics document student accomplishment of the broad liberal learning outcomes valued by higher education.

Assessment philosophy statements

At this college, several belief statements represent our philosophy about assessment. These statements include:

- Assessment data should be aggregated and disaggregated for uses in a variety of ways.
- Assessment data should be provided by direct and indirect measures.
- Self-assessment should be connected to public goals and individual student learning.
- Assessment is based on two central purposes: accountability and improvement.
- An assessment program is strengthened by multiple strategies.
- Assessment strategies should serve multiple audiences whenever possible.

In addition to building collaboration between teacher education and liberal arts faculty, general education rubrics enable faculty and students/candidates to aggregate and disaggregate data, serve as a direct measure of student performance, contribute to self-assessment, serve both the accountability and program improvement functions of assessment programs, provide meaningful information to multiple audiences, and

contribute one piece of a total picture about candidate learning. Indeed, general education rubrics implement the philosophical statements.

One Case Example

This paper describes the new collaborative approach of using general education rubrics as an additional assessment strategy to AACTE members who are revising and sustaining their institutional and teacher education assessment programs. Because there is a strong federal initiative to use a single standardized test score for measuring candidate content knowledge, teacher educators should increase efforts to use multiple measures for basic skills, general education outcomes, professional dispositions, and content area expertise. The Nebraska Department of Education requires candidates for licensure to meet established minimum scores on the Pre-Professional Skills Test (PPST) in reading, writing, and mathematics. Nebraska currently does not require a state-wide content area examination.

Faculty members from this rural, comprehensive private college have developed and are using several rubrics. This collection of ten rubrics is impressive. The general education rubrics are: 1) Writing; 2) Critical Thinking; 3) Heritage Studies; 4) Cultural Perspectives; 5) Mathematics Reasoning; 6) Communication; 7) Community and Leadership; 8) Health and Well-Being; 9) Liberal Learning; and 10) Natural Sciences. Although this set of rubrics will not transfer directly to another campus, the rubrics serve as models to faculty of other institutions who may develop rubrics unique and specific to their college's mission and general education outcomes.

Ways to Use Rubrics

Faculty and students use the rubrics in several ways; each use supports higher academic achievement. While planning instruction, faculty articulate precise statements of learner outcomes and share these outcomes through the rubric among other formats. Planning student outcomes ensures that instruction leads to student achievement. Student course outcomes can be aligned to outcomes for the academic major or general education. Faculty members also identify prerequisite skills and knowledge, and review student needs.

During instruction, faculty use rubrics to confirm that each learning experience is tied to the learning outcomes. Rubrics may include content knowledge factors, skills, and attitudes to be displayed by students. Faculty should encourage students to use the rubrics as a guide to difference performance level. While instruction is in process, faculty members examine student responses and projects to demonstrate content skills and knowledge according to indicators on the rubric. This formative use of rubrics leads to minor adjustments and fine-tuning of instruction to the specific individuals in the class community.

Faculty may decide to apply rubrics as a scoring guide during summative evaluation of student products. If professors have one copy of the rubric for each assignment,

faculty may simply circle or check the indicators that are present. By making notes to ourselves about revisions for improvement of student learning, we capture the ideas for revisions in the rubric or in the learning experiences while we remember them. It is also helpful to make copies of student work at different levels of performance to share as examples with future students.

Students should be accountable for using the rubrics during instruction and assignment completion. Rubrics provide the framework for students to self-assess their own work and provide the structure for peer review. Peers can review assignments prior to formal submission as one step in the process of developing a completed piece of work. Often, an assignment may be improved by using critical critique from peers. With clear expectation, students can ask questions based on elements or indicators they do not understand. Rubrics with levels of performance can help students set goals for the level of their own performance. Additionally, students may use rubrics to identify growth areas in their own learning. Students and faculty may work together to develop rubrics for selected assignments. This gives students ownership of their learning and is another way to help them set their own learning goals.

The Process for Rubric Development

Faculty are involved at every level of rubric development. Two faculty are selected to prepare the first draft which emphasizes the important concepts in the student outcome. One of the faculty members is a member of the Assessment Committee and another teaches in the liberal arts category of the proposed rubric. After they are satisfied with the key processes, the assessment committee chair and the committee member may revise with the approval of the second liberal arts category faculty member. These revisions ensure there are five performance levels, typically applying Bloom's taxonomy of cognitive domain. Then, the Assessment Committee as a whole reviews the draft rubric and may request revisions. If the Assessment Committee members are in agreement that they support the rubric as presented, the Assessment Committee facilitates a Conversations with Colleagues. These are a noon forum open to all campus faculty with cafeteria lunches paid by the Academic Affairs Office. Using focus group techniques, the Assessment Committee chair seeks to understand the ways attending faculty support or suggest revisions in the proposed rubric. Next the revisions from campus faculty are proposed to the Assessment Committee. The two original writers may be consulted if the revisions seem significant. Finally, the Assessment Committee approves the final draft and distributes it to faculty for use in courses.

Most of the rubrics have been developed in the summer with stipends to recognize the scholarly work they are contributing to the effort.

Rubric development criteria

Doane's Assessment Committee has used five criteria for rubric development. We have challenged ourselves to limit the rubrics to one page. We have one two-page rubric, but faculty were unable to delete content or ideas in the revision stages. They have accepted the exception. Because the rubric is shared with students and sometimes other

audiences, we limit use of professional jargon. We promote the use of critical thinking in all levels by using five performance levels based on Bloom's Taxonomy of the Cognitive Domain. Finally, we confirm that the rubric reflects the Doane Plan category outcome.

Strategies to build faculty commitment

Building faculty commitment is a challenge for any assessment task. Faculty involvement and recognition for assessment work is one strategy. Recognition includes the stipend for summer work, light-hearted rewards at the August faculty meeting, announcing the open meetings of the Assessment Committee, strong administration support expressed publicly at the monthly faculty meetings, and other venues. Individual meetings between the Assessment Committee chair and departmental faculty provide feedback on assessment strategies and increase commitment.

Collaboration between general education and teacher education

Opportunities for collaboration exist when assessing both basic skills and content knowledge. These opportunities ensure the use of multiple measures and provide prescriptive diagnosis of areas for program improvement or individual development prior to taking costly standardized tests.

Basic skills competence

Doane's general education outcomes expect students to demonstrate competence in reading, writing, listening, speaking, and mathematical reasoning. These competencies are common to Praxis I or other state required exam of basic skills. When faculty complete rubrics in Writing, Communication, and Mathematical Reasoning, students receive task specific feedback on their performance. Faculty can provide experiences to promote learning needs; this allows students to have a realistic authentic assessment of their achievement. In this way, liberal arts faculty members are assessing teacher education candidate's performance. This information is shared with teacher education departments through candidate portfolios, and surveys completed by general education faculty. These data are available to document learning for both regional and professional accreditation.

Nebraska's Department of Education has written the six traits into its K-12 standards. Teacher candidates in elementary, middle, and special education learn to assess writing by those standards. Although the six traits are embedded in Doane's all college writing rubric, some education faculty use the Six Trait rubric to assess teacher candidate work. In some courses, candidates decide to use either the all college rubric or the Six Trait rubric.

Because Doane's general education includes some use of standardized tests, sub-group data on education students is available. Although the all-college test does not meet the state requirements, teacher candidates with high test anxiety have a low stress testing time to build their confidence. The general education tests also serve as a signal to

faculty and students about individual candidate's readiness to sit for the state exam. Additionally, subgroup data on performance of education students are available.

Content knowledge

General education rubrics reflect the foundation of specific disciplines. This foundation serves as the structural scaffold to enable on-going learning. When candidate competence is evaluated on the breadth of content, candidates begin to understand the depth they must develop. Regional accreditation associations expect faculty to provide evidence of student learning in the academic major. The annual assessment reports serve as one measure for teacher candidate competence.

Although Doane exists in a state without a standardized test for documenting content knowledge, education candidate data from faculty surveys can be used to describe candidate achievement in content areas. For candidates seeking licensure in secondary education, the rubric related to the major serves as a foundation to the additional assessments completed for the academic major. These faculty surveys, like the rubrics, are based on general education outcomes. Selected faculty teaching courses in the liberal arts categories and all faculty teaching capstone courses complete the surveys. A hardware and software package enables us to select students by courses for results. At least one unit with professional accreditation uses data from these surveys in its annual reports.

Conclusion

Use of general education rubrics to document teacher candidate accomplishment of basic skills and content knowledge is collaborative, efficient, and effective. The process to gather assessment data, complete data analysis, and use of the findings to improve programs is both intensive and extensive Collaborative efforts prevent duplication among faculty and administrators who must revise and sustain assessment programs in both specialized accreditation council and regional commissions. The extensive set of general education rubrics developed by faculty of this college offer AACTE membership a model for a new approach by revising the rubrics for use at their own institutions.

References

Allen, J. & Bresciani, M. J. (2003) Public institutions, public challenges: On the transparency of assessment results. *Change, 35,* 1, 21-23.

Maki, P. (2002). Moving from paperwork to pedagogy. *AAHE Bulletin, 54,* 9, 3-5.

Erickson, J., & Penney, S. H. (2002). An accreditation team tightens up. *Trusteeship, March/April,* 29-31.

Doane College
Crete, NE
General Education Outcomes

Through the completion of the Doane Plan, Doane students demonstrate the following:

1. An understanding of the origins, development, values, and distinctive qualities of Western heritage

2. An understanding of the nature and effects of economic, political, psychological, and social forces

3. An understanding of the values, traditions, behaviors, and philosophical foundations of diverse national and international cultures

4. An understanding of the basic phenomena of the natural world, methodologies governing the sciences, and the relationship of both to the world community

5. An understanding of the fundamental processes of mathematics and the ability to use mathematical modeling in solving practical problems

6. The ability to read, write, speak, listen, and interpret meanings effectively

7. The ability to understand, appreciate, and engage in creative expression

8. An understanding of health and lifetime fitness

9. An understanding of constructive leadership and ethical decision making

10. The ability to appreciate and explore new areas of learning.

Heritage Studies Rubric

An understanding of the origins, development, values, and distinctive qualities of Western heritage is demonstrated when:

The student ...	The Values and Qualities of Western Heritage	The Values and Qualities of Non-Western Heritage	Discipline-Specific Literacy	The Role of the Past in Shaping the Present	Philosophy and the History of Ideas
1 Synthesizes and Evaluates	Evaluates his/her world view or the world view of others in the context of the world view and life choices expressed by Western heritage.	Evaluates and contrasts her/his world view or the world view of others in the context of the world view and life choices expressed by non-Western heritage.	Documents and evaluates patterns, values and qualities in literature, historical accounts, and philosophy of the Western and non-Western heritages.	Judges the impact of one or more of the factors listed in level 4 below on the present.	Validates his/her decisions or the decisions of another according to one or more of the five factors listed in level 4 below.
2 Analyzes	Appraises his/her or another's world view based on the knowledge listed in level 4.	Appraises his/her or another's world view to recognize and value the impact of non-Western heritage.	Appraises literature, history, and philosophy according to its depiction of Western and non-Western values and qualities.	Analyzes the roles of the three factors listed in level 4 below when noting the impact of the past in shaping the present.	Formulates and articulates a personal philosophy based on one or more of the five factors listed in level 4 below.
3 Applies	Uses the knowledge listed in level 4 to determine how the qualities and values of Western heritage from ancient times to the present influence specific situations.	Determines how the knowledge listed in level 4 influences the values and qualities of non-Western heritage.	Interprets literature, philosophy and history knowingly according to Western and non-Western values and qualities.	Charts in narrative or graphic form the three factors listed in level 4 below to show the relationships and transitions across time embedded within the factor.	Generalizes through a process of inductive reasoning qualities and values from one or more of the five factors listed in level 4 below to a new situation.
4 Knows and Comprehends	Knows about (1) the interaction of the individual and society as expressed in literary texts, or (2) the institutional, scientific, and intellectual contributions to the shaping of Western modernity, or (3) Biblical and philosophical thought.	Knows about (1) society and the individual in the literature and traditions of non-Western society, or (2) the social, political, and intellectual interaction of Western and non-Western cultures from pre-colonial times to the present.	(1) Demonstrates knowledge of philosophy, and history, and literature through English composition; (2) uses critical thinking in response to literature; and (3) demonstrates familiarity with historical, literary, and philosophical luminaries, geographies, texts, institutions, and events.	Understands the (1) origins of human society, or (2) the contributions of religion, literature, science, and philosophy in shaping Western and non-Western societies, or (3) the effects of economic, political, social, and psychological forces in shaping the development of the modern world.	Comprehends (1) ethical and philosophical theory and literature in relation to leadership and moral problem solving, or (2) the world's major religions and belief systems, or (3) the history of ideas through consideration of specific social contexts, or (4) the significance of creative responses to historical events and dominant ideas, or (5) the content of creative responses to historical events and dominant ideas.
5 Has little/no knowledge	Has limited or restricted knowledge of the factors listed above.	Has limited or restricted knowledge of the factors listed in level 4.	Has limited or restricted knowledge of the factors listed in level 4.	Has limited or restricted knowledge of the factors listed in level 4.	Has limited or restricted knowledge of the factors listed in level 4.

November 1, 2001 Doane College, Crete, NE Assessment Committee

Cultural Perspectives Rubric, October 9, 2001 Page 1of 2

Students demonstrate an understanding of the values, traditions, behaviors and philosophical foundations of diverse national and international cultures.

The student	Cultural interaction among established cultures	Culture as socially-conditioned behavior	Social origins of art (as a material basis of culture)	Foundations of Culture Itself
1 Synthesizes and Evaluates	Weighs the importance of the three factors listed below.	Comes to conclusions regarding the interplay of the three factors listed below.	Compares and contrasts how art and culture interact in different societies.	Generates a definition of culture. Weighs the distinctive contributions of various eras to the components of culture.
2 Analyzes	Analyzes the importance of the three factors listed below.	Identifies the shaping effects of one or more of the three factors listed in level 4 below.	Appraises how art and culture influence one another.	Examines various defined cultures by components and contributions of the cultural eras.
3 Applies	Chooses an appropriate situation that exemplifies the three factors listed below.	Recognizes the setting and context for effective use of the cultural norms and language impacted by political, economic, and religious forces (eg. gender, race, ethnicity, class, sexuality).	Demonstrates by example that (1) social context influences the content and form of art, (2) cultural change is influenced by and facilitates innovation in art form and content, and (3) art influences cultural identification and social position of individuals in relation to others (eg. gender, race, ethnicity, class, sexuality).	Examines various defined cultures by components and contributions of the cultural eras.
4 Compre-hends and Knows	Understands (1) the benefits of majority privilege, (2) the origins of and differences in communication style, and (3) the dynamics of cultural conflict.	Has a sense of (1) the normative aspects of culture, (2) the political, economic, and religious forces on culture, and (3) understands the influence of language on reality and culture.	Is aware that (1) social context influences the content and form of art, (2) cultural change is influenced by and facilitates innovation in art forms and content, and (3) art influences cultural identification and social position of individuals in relation to others.	(1) Defines culture, (2) Illustrates contributions of various eras to culture, and (3) recognizes possible components of culture.
5 Has little or no knowledge about the concepts	Has knowledge of the three factors that is so limited that it cannot be used in isolation or to establish connections with other concepts.	Has knowledge of the three factors that is so limited that it cannot be used in isolation or to establish connections with other concepts.	Has knowledge of the three factors that is so limited that it cannot be used in isolation or to establish connections with other concepts.	Has knowledge of the three factors that is so limited that it cannot be used in isolation or to establish connections with other concepts.

Faculty teaching courses in the Cultural Perspectives category should select the element column or columns that most appropriately fit their course. Faculty are not expected to address all seven columns in each Cultural Perspectives course, although some faculty may address all seven elements in one course.

Students demonstrate an understanding of the values, traditions, behaviors and philosophical foundations of diverse national and international cultures.

	Historical Influences on Culture	Geographical Influences on Culture	Willingness to Learn About and Experience Different Cultures
1 Synthesizes and Evaluates	Evaluates the impact of diffusion, innovation, and appropriation as influenced by history, temporal sequencing, and historical legacy.	Argues a case for or against the position stated by the three factors listed below.	Has knowledge of the three factors that is so limited that it cannot be used in isolation or to establish connections with other concepts.
2 Analyzes	Traces the innovation, diffusion, or appropriation of a cultural artifact by another society.	Produces a unique communication that explains how the three factors listed below operate.	Plans strategies expanding one's experiences in one's own and different cultures leading to understanding one's individual position in relation to one's own and other cultures.
3 Applies	Compares the processes of diffusion, innovation, and appropriation as influenced by history, temporal sequencing, and historical legacy.	Relates the three factors listed below to each other.	Applies the principles listed in level 4 below to one's own interaction with others.
4 Comprehends and Knows	(1) Recognizes the role of history (i.e., historical context) in shaping the context of culture. (2) Understands the temporal sequencing underlying how culture is borrowed by societies. (3) Understands the role of historical legacy in furthering or promoting cumulative advantage for some cultures.	Understands that (1) a sense of place is both cause and consequence of culture, (2) geography influences the amount and type of interactions between different cultures, and (3) the extent to which proximity of cultures influences innovation, diffusion, and appropriation of culture.	(1) Recognizes the overlap or divergence between his/her own culture and other culture, (2) define the importance of ethnocentrism and cultural relativism in the study of culture, and (3) defines assimilation, accommodation, and amalgamation among cultures.
5 Has little or no knowledge about the concepts	Has knowledge of the three factors that is so limited that it cannot be used in isolation or to establish connections with other concepts.	Has knowledge of the three factors that is so limited that it cannot be used in isolation or to establish connections with other concepts.	Has knowledge of the three factors that is so limited that it cannot be used in isolation or to establish connections with other concepts.

Natural Science Assessment Rubric

An Understanding of **the basic phenomena** of the natural world, **methodologies** governing the sciences, and **the relationship of both** to the world community is demonstrated when:

The student uses...	**the basic phenomena**	**methodologies**	**the relationship of both**
1 Evaluation and Synthesis	Predict and evaluate how change within a system affects that system. Evaluation example: Judge the merits of the research based on your criteria for conducting research. Synthesis example: Design an experiment to determine how much energy can be saved by using storm doors in a home in the winter.	Recognize and analyze alternative explanations and models. Evaluate the reasonableness of answers to problems by reviewing the process used to find answers and checking against typical values.	Create scientific explanations consistent with experimental and observational evidence and make accurate predictions. Create a physical, mental, or mathematical model to show how objects and processes are connected.
2 Analysis	Analyze a system to understand how things work and design solutions to problems. Example: Present evidence that demonstrates the harm that has been caused by nuclear power plants.	Formulate and revise scientific explanations and models using logic and evidence. Construct hypotheses and draw conclusions.	Research and relate the long-term societal effects of science and technology advancements. Examples of advances: germ theory, Newtonian mechanics, geologic time scale
3 Application	Apply basic scientific theories to solve similar but unique problems. Example: What is the molarity of the solutions, given their normality?	Design and conduct scientific investigations.	Demonstrate the use of empirical standards, logical arguments, and skepticism in science.
4 Comprehension and Knowledge	Knowledge of dates, events, places and major ideas. Understand the major theories in a specific discipline. Comprehension example: How can you explain the movement of the dye in the water? Knowledge example: What is the autumnal equinox?	Describe the scientific method and state the value of hypothesis testing and illustrate with an appropriate example.	Understand that knowledge of basic phenomena and methodologies about scientific and technological challenges should precede active debate.
5 Has little or no knowledge	Has limited knowledge of the factors listed in level 4.	Has limited knowledge of the factors listed in level 4.	Has limited knowledge of the factors listed in level 4.

MATHEMATICAL REASONING RUBRIC FOR DOANE PLAN

Level of Achievement	MECHANICS The student demonstrates an understanding of the fundamental processes of mathematics.	PROBLEM SOLVING The student demonstrates the ability to use mathematical modeling in solving problems.
1 **Exemplary**	***Work is always clear, easy to follow, and virtually free of mechanical errors*** (always uses acceptable notation, is always able to perform algebraic operations on expressions containing exponents or radicals, can factor and simplify complex algebraic expressions, can solve virtually any type of equation or inequality in one and two variables)	***Easily makes connections to other disciplines and can apply mathematics to a broad spectrum of problems*** (correctly expresses mathematical ideas, is consistently able to set up and solve multi-stage problems, consistently discerns relevant patterns and determines significance of information, is able to generalize results, correctly interprets numerical, graphical, and algebraic information)
2 **Very Good**	***Work is well presented, but occasionally contains flaws*** (occasionally has difficulty with syntax or order of operations, exponents, radicals and factoring, on occasion gets lost in simplification of more complex algebraic expressions, can solve most equations and inequalities on one and two variables)	***Is usually able to make connections between mathematics and other disciplines and can apply mathematics to many practical problems*** (usually recognizes and correctly expresses mathematical ideas, is usually able to set up and solve multi-stage problems, usually discerns relevant patterns and significance of information, is usually able to correctly interpret various types of information)
3 **Minimally Proficient**	***Demonstrates a minimally adequate understanding of the fundamental processes of mathematics*** (work is not always well organized, sometimes has difficulties with syntax, order of operations, exponents, radicals and factoring, is sometimes unable to simplify algebraic expressions, has difficulty solving some equations and inequalities)	***Knows concepts, but sometimes has difficulty applying them to practical problems*** (sometimes doesn't make connections or has difficulty formulating problems mathematically, sometimes gets lost in the solution of larger problems, sometimes does not correctly interpret information)
4 **Substandard**	***Frequently commits major mechanical errors*** (often unable to correctly apply the fundamental processes of algebra, notation is often flawed, makes frequent errors in order of operations, exponents, and radicals, often has difficulty with factorization, simplification of algebraic expressions, and solution of equations and inequalities)	***Is often unable to apply concepts to practical problems*** (frequently does not make necessary connections, has a great deal of difficulty formulating problems mathematically, often has difficulty determining relevance of information, often gets lost in the solution of larger problems)
5 **Unacceptable**	***There are serious and persistent mechanical errors*** (typically uses faulty notation and has major difficulties with the fundamental processes of algebra; except for straight forward cases, has frequent difficulty dealing with exponents, radicals, factoring, simplifying algebraic expressions, and solving equations and inequalities)	***Has frequent and persistent difficulty with application of mathematics to practical problems*** (has difficulty expressing mathematical ideas, frequently uses the wrong mathematical tool, usually fails to see connections, has many difficulties with problem solving, is usually unable to determine the significance of information)

Dr. Christopher Masters, Professor of Mathematics, developed this rubric. The mathematics faculty and Assessment Committee approved it. May 2002

Communication Rubric

Students will demonstrate the ability to speak, listen and interpret meanings effectively. (There is a separate rubric for writing. Reading is not included in this rubric.)

The student	Coding Skills* +	Listening Skills +	Public Speaking Skills	Small Group Skills**	Interpersonal Skills***
1 Synthesizes and Evaluates	Produces own communication performance according to appraisal of effective verbal and nonverbal communication coding acts.	All of Level 2 plus: Synthesizes and evaluates by drawing logical inferences and conclusions; and employs active listening techniques including formulating questions that clarify or qualify the speaker's content.	Recognizes, interprets, and utilizes audience feedback to evaluate the effectiveness of the speech in achieving its stated purpose, and adjusts all elements in levels 2-5 to achieve that result.	Selects and integrates a variety of strategies and appraises the outcomes.	Reflects on effectiveness of interpersonal communication strategies and modifies these accordingly.
2 Analyzes Alternative Strategies	Contrasts own communication performance with effective models of verbal and nonverbal communication coding acts.	All of level 3 plus: Distinguishes between emotional and logical statements and detects bias and prejudice.	Incorporates effective transitions among components named in level 3 and supports arguments with relevant and adequate evidence.	Identifies hindrances and aids to small group consensus.	Adapts interpersonal communication according to the other individual in dyad.
3 Applies	Includes verbal and nonverbal coding skills in speech communication acts.	All of level 4 plus: Perceives speaker's purpose and attitude, and discriminates between facts and opinions.	Uses basic reasoning to formulate a clear thesis statement, and develop and structure the beginning, main body, and conclusion.	Selects and implements the most effective small group skills to achieve the communication purpose.	Implements interpersonal communication strategies to achieve the communication purpose.
4 Recognizes Importance and Makes Distinctions	Identifies the four verbal and four nonverbal coding skills as listed below.*	Recognizes and makes distinctions among the four listening skills listed below. *****	Recognizes basic reasoning, and utilizes beginning, main body, and conclusion.	Recognizes and illustrates the seven small group skills listed below. **	Recognizes and illustrates five inter-personal communication skills.***
5 Does Not Recognize	Has limited ability to identify the four verbal and four nonverbal coding skills as listed below.*	Little or no recognition and recall of the four listening skills listed below.	Does not discern the importance of the beginning, main body, conclusion or basic reasoning.	Has limited ability to accurately identify small group skills listed below.**	Has limited ability to employ the five listed interpersonal communication skills.

* Four verbal coding skills: (1) values and uses standard grammar, and pronunciations; (2) values and uses technical vocabularies, slang, idioms, and regional dialects; (3) uses appropriate levels of abstraction and generality; and (4) uses the language artistically. Four nonverbal coding skills: (1) uses tone, emphasis, and pauses; (2) uses posture, gesture, an expression; (3) considers interpersonal distance; and (4) considers clothing and ornamentation in relation to message and context. (Nonverbal coding includes use of multimedia presentations, visual aids, and other artifacts.)

** Small group skills include the ability to : (1) understands and implements different methods of building small group consensus, (2) motivates all to participate and work effectively team, (3) manages and resolve group conflicts or misunderstandings effectively; (4) forms interpersonal connections with group members; (5) shares leadership with group members; encourages expression of different views and opinions; and (7) adapts to people from other cultures, organizations or groups.

***Interpersonal skills include the ability (1) to adapt communication to interpersonal needs; (2) to adapt communication to cultural environment, (3) to recognize the unique element communication in relationships; (4) to manage conflict for positive outcome; and to give and receive compliments and constructive criticism.

*****Four listening skills include the ability to: (1) recognize and recall main ideas; (2) give accurate behavioral response to instruction; (3) recognize some relationships among idea recognizes need to attend to communication with an open mind; and (4) perceive a need to determine speaker's purposes and attitudes.

^Faculty teaching courses in the Communication category should select the element column or columns that most appropriately fit their course. Faculty are not expected to address a five columns in each Communication course, although some faculty may address all five elements in one course.

^Synthesized from work of the National Communication Association by Doane College Communication faculty and Assessment Committee members.

+ Coding and listening skills are applied in the context of public speaking and small group and interpersonal communication. 4-17-02

Writing Skills Rubric: Expanded Version * Pilot for Spring 2000

	Structure	Content	Mechanics
Superior or Strongly Agree 1	Clear beginning, development, and conclusion Appropriate paragraphing Clear and appropriate transitions	Appropriate length to cover topic Clearly and coherently focused (including a good sense of audience) Thoughts clearly organized and presented Logical and clear progression Assertions clearly supported and/or illustrated Sufficient and appropriate details to provide evidence	Correct sentence structure Correct spelling Correct punctuation Correct capitalization Correct usage Appropriate word choice
Very Good or Agree 2	Generally clear beginning, development, and conclusion Generally appropriate paragraphing Generally clear and appropriate transitions	Appropriate length to cover topic Clearly and coherently focused (including sufficient sense of audience) Thoughts generally organized and presented Generally logical and clear progression Assertions generally supported or illustrated Generally sufficient and appropriate details	Generally free of errors in Sentence structure Spelling Punctuation Capitalization Usage Word Choice
Adequate or Neutral 3	Adequate beginning, development, and conclusion Adequate paragraphing Adequate transitions Adequate progression	Adequate length to cover the topic Adequately focused (including some sense of audience) Thoughts adequately organized and presented Adequate progression Assertions adequately supported and/or illustrated Some details to provide evidence	Relatively few errors in Sentence Structure Spelling Punctuation Capitalization Usage Word Choice
Fair or Disagree 4	Weak beginning, development, and conclusion Weak paragraphing Weak transitions	Not adequate length to cover topic Weakly focused (little sense of audience) Thoughts not clearly organized Unclear progression Assertions weakly supported and/or illustrated Insufficient and inappropriate details	Significant errors in Sentence Structure Spelling/punctuation Capitalization Usage/word choice
Not Adequate or Strongly Disagree 5	Serious and persistent errors in organizational structure and paragraphing	Does not cover the topic Not focused (no sense of audience) Unorganized Faulty reasoning No supporting evidence	Serious and persistent errors in Sentence structure Spelling/punctuation Capitalization Usage/word choice

Revised from Todt, Hamilton, Huang, Lorentz, and Kunkle, 1998, NCA Collection of Papers.

Health and Well-Being Rubric

The student will demonstrate an understanding of health and lifetime fitness.

Student	Health-related Fitness
1 Synthesizes and Evaluates	Maintains, evaluates, and revises a plan for lifelong health that incorporates all five factors listed in level 4.
2 Analyzes	Appraises his or her health and fitness based on the five factors listed in level 4.
3 Applies	Is able to apply the five principles listed below to establish a program to achieve and maintain life-long health and fitness
4 Comprehends and Knows	Understands the benefits of • Cardio-respiratory endurance, • Muscular strength and endurance, • Flexibility, • Body composition, and • Nutrition
5 Has little or no knowledge about the concepts	Knowledge of the five factors listed above is so limited that it cannot be used in isolation or to establish lifelong health.

First draft, May 2002 by David Dunnigan, Assistant Professor of Physical Education.

The Community and Leadership Rubric

The student demonstrates an understanding of constructive leadership and ethical decision making

The student...	Ethical Decision-Making and Community	Leadership	Service Learning
Synthesizes and Evaluates	Orders components of community from most effective to least effective in campus or internship/career setting; and Designs strategies to strengthen community and resolve challenges in workplace, recreation, or public venues.	Reflects on successful use of leadership; Affirms values of all community members; and Seeks the voice and contribution of members diverse by race, ethnicity, gender, language, religion, sexual orientation, and socio-economic status.	Connects knowledge, skills, and values developed in Doane courses and experiences to culminating service learning and other internship projects.
Analyzes	During internships or similar experiences, identifies components of community in business or career setting; and Engages in dialogue with community participants to raise questions and deliberate about existing challenges as part of the decision-making process.	Contrasts impact of one's own leadership strategies by setting or strategy. Analyzes strengths and weaknesses of community members	(a) Displays sociocultural consciousness, and describes different ways of perceiving reality according to context; and (b) Recognizes institutionalized bias of race, ethnicity, gender, language, religion, sexual orientation, and socio-economic status.
Applies	Applies principles of community engagement to residential setting and broader campus community; and Attends a variety of campus events.	Demonstrates leadership skills: Develops vision and goals for future improvements Selects appropriate leadership style to achieve goals Demonstrates collaborative skills Describes skills for dealing with conflict	Implements service learning project in a new setting in order to broaden one's understanding of own role with diverse individuals and events.
Knows and Comprehends	Participates in learning in the classroom community; and Gathers facts about existing challenges.	Names steps in the change process; Identifies barriers to change;	Accepts and completes the assigned service learning project with the classroom community; and Works with a diverse team in a diverse setting.
Has little knowledge	Completes individual tasks with own needs and requirements fulfilled or some or all tasks incomplete.	Does not display leadership skills or does not utilize them in an ethical manner.	Leaves all or parts of the service learning requirement incomplete or inadequately fulfilled.

October 24, 2002

Liberal Learning Rubric
(Draft December 2002)

Students demonstrate an ability to appreciate and explore new areas of learning..

Liberal Learning	Fundamental Concepts of the disciplines	Discipline-specific learning	Value of interdisciplinary and multi-disciplinary approaches and concepts	Applications of interdisciplinary and multi-disciplinary approaches and concepts
1 Synthesizes and evaluates	Evaluates the concepts and scopes of the disciplines	Evaluates information through the filter of discipline-specific learning	Appraises the value of interdisciplinary and multi-disciplinary approaches and concepts	Creatively compares and contrasts the uses and applications of interdisciplinary and multi-disciplinary approaches and concepts
2 Analyzes	Appraises the concepts and scopes of the disciplines	Understands the meaning and use of discipline-specific learning	Recognizes and interprets the value of interdisciplinary and multi-disciplinary approaches and concepts	Weighs the uses and applications of interdisciplinary and multi-disciplinary approaches and concepts
3 Applies	Demonstrates applications of the concepts and scopes of the disciplines	Demonstrates applications of discipline-specific learning	Demonstrates knowledge of the value of interdisciplinary and multi-disciplinary approaches and concepts	Uses and applies interdisciplinary and multi-disciplinary approaches and concepts
4 Comprehends and knows	Understands the concepts and scopes of the disciplines	Displays and understands discipline-specific learning	Understands the value of interdisciplinary and multi-disciplinary approaches and concepts	Displays moderate ability to apply interdisciplinary and multi-disciplinary approaches and concepts
5 Has little or no appreciation or understanding of new areas of learning	Has little or no knowledge about the concepts and scopes of the discipline	Displays little or no knowledge related to discipline-specific learning	Displays little or no knowledge of the value of interdisciplinary and multi-disciplinary approaches and concepts	Has limited ability to apply interdisciplinary and multi-disciplinary approaches and concepts

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

ERIC®

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: Using General Education Assessment Rubrics to Document Basic Skills and Content Knowledge

Author(s): K L Hegler

Corporate Source: Doane College

Publication Date: 1-26-03

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

1

Level 1

☒

Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) *and* paper copy.

The sample sticker shown below will be affixed to all Level 2A documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2A

Level 2A

☐

Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only

The sample sticker shown below will be affixed to all Level 2B documents

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY

Sample

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

2B

Level 2B

☐

Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here, → please

Signature: Kay L Hegler	Printed Name/Position/Title: Kay Hegler PhD
Organization/Address: Doane College Crete NE 68333	Telephone: 402-826-8208 / FAX: 402-826-8199
	E-Mail Address: khegler@doane.edu / Date: 11-13-02

(over)

CLEARINGHOUSE ON TEACHING
AND TEACHER EDUCATION

ERIC

November 4, 2002

Dear AACTE Presenter:

The ERIC Clearinghouse on Teaching and Teacher Education invites you to contribute to the ERIC database by providing us with a copy of your paper that will be presented at AACTE's 55th Annual Meeting, (January 24-27, 2003, New Orleans, LA). Abstracts of documents that are accepted by ERIC are available through computers in both on-line and CD/ROM versions. The ERIC database is accessed worldwide and is used by teachers, administrators, researchers, students, policymakers, and others with an interest in education.

AACTE
AMERICAN ASSOCIATION OF COLLEGES FOR TEACHER EDUCATION
1307
NEW YORK AVE. NW
SUITE 300
WASHINGTON, DC
20005-4701
202/293-2450
FAX: 202/457-8095

Inclusion of your work provides you with a permanent archive and contributes to the overall development of materials in ERIC. The full text of your contribution will be accessible through microfiche collections that are housed at libraries throughout the country and through the ERIC Document Reproduction Service. Documents are reviewed and accepted based on their contribution to education, timeliness, relevance, methodology, effectiveness of presentation, and reproduction quality.

To disseminate your work through ERIC, you will need to complete and sign the **Reproduction Release Form** located on the back of this letter and return it with a letter-quality copy of your paper. Please mail all materials to: **The ERIC Clearinghouse on Teaching and Teacher Education, 1307 New York Ave., N.W., Suite 300, Washington, D.C. 20005.** Please feel free to photocopy the release form for future or additional submissions.

Should you have further questions, please contact me at 1-800-822-9229; or E-mail: lkelly@aacte.org.

Sincerely,

Linda M. Kelly
Acquisitions and Outreach Coordinator